

REMARKS

By this Amendment, claims 1, 6, 7 and 9 have been amended merely to further recite the claimed subject matter and claim 10 has been cancelled without prejudice or disclaimer. Furthermore, new claims 11-20 have been added merely to provide further dependent claim support to the independent claims. Each of the new claims finds support in the original disclosure and is substantially similar to an original claim. Applicants have amended the currently pending claims in order to expedite prosecution and do not, by this amendment, intend to abandon subject matter of the claims as originally filed or later presented. Moreover, Applicants reserve the right to pursue such subject matter in a continuing application. No new matter has been added. Claims 1-9 and 11-20 are pending in this patent application. Reconsideration of the rejections in view of the remarks below is requested.

Paragraph 64 of the specification has been amended to correct a typographical error.

The Office Action rejected claims 1, 2, 3, 9 and 10 under 35 U.S.C. § 102(b) as being anticipated by U.S. patent no. US 6,245,470 to Kamon ("Kamon"). Applicants respectfully traverse the rejection, without prejudice.

Applicants respectfully submit that Kamon at least fail to disclose, teach or suggest a method of determining aberration of a projection system of a lithographic apparatus wherein, *inter alia*, projecting a second test pattern comprises filtering to select particular radiation paths through the projection system as recited in independent claim 1 and a device manufacturing method comprising, *inter alia*, projecting a second test pattern comprises filtering to select particular radiation paths through the projection system as recited in independent claim 9.

The Examiner refers to col. 5, lines 28-38 of Kamon as disclosing "wherein projecting the second test pattern comprises filtering to select particular radiation paths through the projection system." Respectfully, Applicants submit that Kamon merely discloses that the aberration eliminating filter 13 is inserted into the projection system after the one or more aberration estimating patterns in Kamon are exposed. See Kamon, col. 5, lines 48-65. Thus, Kamon fails to disclose, teach or suggest projecting a test pattern that comprises filtering to select particular radiation paths through the projection system. Moreover, Kamon fails to disclose, teach or suggest that the aberration eliminating filter 13 is configured to select particular radiation paths through the projection system.

Therefore, for at least the above reasons, Kamon fails to disclose, teach or suggest all

the features recited by claims 1 and 9. Claim 10 has been cancelled and thus its rejection is now moot. Claims 2, 3 and 17 depend from claim 1 and are, therefore, patentable for at least the same reasons provided above related to claim 1 and for the additional features recited therein. New claims 18-20 depend from claim 9 and are, therefore, patentable for at least the same reasons provided above related to claim 9 and for the additional features recited therein. As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §102(b) of claims 1, 2, 3, 9 and 10 in view of Kamon should be withdrawn and the claims allowed.

The Office Action rejected claims 4-8 under 35 U.S.C. §103 as being obvious in view of Kamon and further in view of U.S. Patent No. 6,304,317 to Taniguchi et al. ("Taniguchi et al."). Applicants respectfully traverse the rejection, without prejudice.

Applicants respectfully submit that, as discussed above, Kamon fail to disclose, teach or suggest independent claim 1 and that Taniguchi et al. fail to overcome the shortcomings of Kamon. Taniguchi et al., for example, fail to disclose, teach or suggest projecting a reference test pattern in the lithographic apparatus, projecting a second test pattern in the lithographic apparatus and measuring relative displacements between items in resulting images of said reference test pattern and said second test pattern as recited in claim 1. Claims 4, 5 and 17 depend from claim 1 and are, therefore, patentable for at least the same reasons provided above related to claim 1 and for the additional features recited therein.

Further, Applicants submit that the teachings of Kamon, Taniguchi et al., or the combination thereof do not render independent claims 6 and 7 obvious at least because Kamon fail to disclose, teach or suggest a method of determining aberration of a projection system of a lithographic apparatus wherein, *inter alia*, projecting a second test pattern comprises filtering to select particular radiation paths through the projection system as recited in independent claims 6 and 7. As discussed above with respect to independent claim 1, Kamon merely discloses that the aberration eliminating filter 13 is inserted into the projection system after the one or more aberration estimating patterns in Kamon are exposed. See Kamon, col. 5, lines 48-65. Thus, Kamon fails to disclose, teach or suggest projecting a test pattern that comprises filtering to select particular radiation paths through the projection system. Moreover, Kamon fails to disclose, teach or suggest that the aberration eliminating filter 13 is configured to select particular radiation paths through the projection system.

Taniguchi et al. fail to overcome the shortcoming of Kamon with respect to independent claims 6 and 7 at least because Taniguchi et al., for example, fail to disclose, teach or suggest projecting a reference test pattern in the lithographic apparatus, projecting a

second test pattern in the lithographic apparatus and measuring relative displacements between items in resulting images of said reference test pattern and said second test pattern as recited in claims 6 and 7.

New claims 11-14 depend from claim 6 and are, therefore, patentable for at least the same reasons provided above related to claim 6 and for the additional features recited therein. Claims 8, 15 and 16 depend from claim 7 and are, therefore, patentable for at least the same reasons provided above related to claim 7 and for the additional features recited therein.

Therefore, for at least the above reasons, Kamon, Taniguchi et al., and the combination thereof, fail to disclose, teach or suggest all the features recited by claims 4-8.

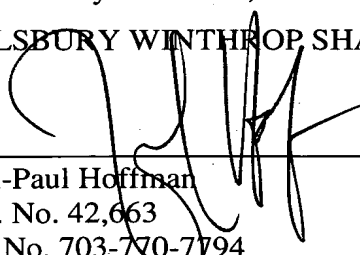
As a result, Applicants respectfully submit that the rejection under 35 U.S.C. §103 of claims 4-8 in view of Kamon and Taniguchi et al. should be withdrawn and the claims allowed.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. If questions relating to patentability remain, the Examiner is invited to contact the undersigned to discuss them.

Should any fees be due, please charge them to our deposit account no. 03-3975, under our order no. 081468/0308899. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced deposit account.

Respectfully submitted,

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